Listing of Claims:

1.   (Currently Amended) An electronic camera comprising:

an image sensing unit for electronically sensing an object image and outputting image data of the object image;

a memory unit for storing the image data output from said

5   image sensing unit;

an image processing unit for performing predetermined image processing based on the image data stored in said memory unit;

an interpolation calculation circuit for interpolating a pixel whose data is not present in the image data after said

10   image processing by said image processing unit by interpolation calculation based on an approximate expression including a polynomial of at least 3rd-order, and writing the image data after interpolation in said memory unit, said interpolation calculation circuit comprising:

15   a calculation section for calculating an interpolation position of a pixel;

an interpolation coefficient table which includes a plurality of interpolation coefficients;

a correction section for correcting the interpolation

20   position so as to correspond to one of the interpolation coefficients; and

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   <u>an interpolation calculation section for interpolating</u>
<u>the pixel using the interpolation coefficient for the corrected</u>
<u>interpolation position;</u>

25   a display unit for displaying the image data after
interpolation; and

   a recording unit for recording the image data after
interpolation on a recording medium.

   2. (Currently Amended) A camera according to claim 1,
further comprising a compression/expansion unit for <u>at least one</u>
<u>of</u> compressing the image data after image processing ~~or~~ <u>and</u>
expanding the image data read out from said recording unit.

   3. (Currently Amended) A camera according to claim 1,
wherein the interpolation calculation is a convolution
calculation based on an approximate expression including a 3rd-
order ~~(cubic)~~ polynomial.

   4. (Original) A camera according to claim 1, wherein said
memory unit has a memory area dedicated for the interpolation
calculation by said interpolation calculation circuit.

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5.   (Original) A camera according to claim 1, further
comprising a dedicated memory unit used for the interpolation
calculation by said interpolation calculation circuit.

Claim 6 (Canceled).

7.   (Currently Amended) A camera according to claim 1,
wherein said image sensing unit comprises a single image sensing
element ~~(single CCD)~~ to which an optical filter having an RGB
color coating is attached.

8.   (Currently Amended) A camera according to claim 7,
further comprising a color separation unit for separating
pixels in units of RGB color components based on a form of the
color coating of said image sensing element to generate <u>a</u>
<u>plurality of</u> pixel planes of the RGB color components from one
pixel plane, and
wherein said interpolation calculation circuit interpolates
~~the~~ pixel ~~whose~~ data <u>which</u> is not present in the pixel planes of
the RGB color components.

9.   (Currently Amended) A camera according to claim 1,
wherein the image processing includes enlargement and reduction
of an image, and

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wherein said interpolation calculation circuit interpolates

5   ~~the~~ pixel ~~whose~~ data <u>which</u> is not present in the enlarged or

reduced image.

10.   (Original) A camera according to claim 9, wherein the

enlargement/reduction image processing is individually performed

for a display image to be supplied to said display unit and a

recording image to be supplied to said recording unit.

11.   (Currently Amended) A camera according to claim 7,

wherein the image processing includes thinning of predetermined

pixels and format conversion based on a sum of the predetermined

pixels, and

5   <u>wherein</u> said interpolation calculation circuit interpolates

~~the~~ pixel ~~whose~~ data <u>which</u> is not present in the image after the

format conversion.

12.   (Currently Amended) A camera according to claim 1,

further comprising an address control unit for controlling a

write address in writing the image data processed by said image

processing unit in said memory unit,

5   wherein said address control unit ~~overwriting~~ <u>overwrites a</u>

part of ~~the~~ image data ~~on part of image data~~ which has already

been written.

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13.   (Original) A camera according to claim 12, wherein said address control unit controls an offset address from a start address of a storage area of said memory unit.

14.   (Original) A camera according to claim 1, further comprising at least one of an automatic focus control unit and an automatic exposure unit, and

wherein said interpolation calculation circuit executes the
5   interpolation calculation when said automatic focus control unit and said automatic exposure unit are in an inoperative state.

15.   (Currently Amended) A camera according to claim 1, further comprising an image sensing mode setting unit for setting ~~an~~ one of a plurality of image sensing ~~mode~~ modes, and

wherein ~~whether~~ execution of the interpolation calculation
5   by said interpolation calculation circuit is ~~enabled/disabled is determined in correspondence with~~ enabled and disabled based on the image sensing mode set by said image sensing mode setting unit.

16.   (Currently Amended) A camera according to claim 15, wherein the image sensing ~~mode settable by said image sensing~~

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~~mode setting unit includes~~ <u>modes comprise</u> a still image sensing mode and a moving/still image sensing mode, and

5   <u>wherein</u> ~~only when the still image sensing mode or the moving/still image sensing mode is set,~~ the interpolation calculation by said interpolation calculation circuit is performed <u>only when one of the still image sensing mode and the moving/still image sensing mode is set</u>.

     17. (Currently Amended) A camera according to claim 1, further comprising an image quality mode setting unit for setting an image quality mode of the sensed image, and

     wherein ~~only when the image quality mode with a variable~~
5 ~~image size is set,~~ the interpolation calculation by said interpolation calculation circuit is performed <u>only when an image quality mode corresponding to a variable image size is set</u>.

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